

ROCKY FLATS SITE REGULATORY CONTACT RECORD

Purpose: Disposition February-July 2006 monitoring results for arsenic at the Present Landfill Treatment System (PLFTS)

Contact Record Approval Date: March 13, 2007

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Discussion:

As part of Present Landfill closure, a passive seep interception and treatment system has been installed to treat volatile organic compounds (VOCs) in landfill seep water and ground water intercept system (GWIS) water. There are three sources of influent to the treatment system: two GWIS pipes, and the Present Landfill seep. Effluent from the treatment system eventually flows to the Landfill Pond.

As required by the *Present Landfill Monitoring and Maintenance Plan and Post-Closure Plan* and detailed in the 2006 Integrated Monitoring Plan (to be superseded under the Rocky Flats Legacy Management Agreement [RFLMA] by the Rocky Flats Site Operations Guide [RFSOG]), treatment system effluent monitoring requirements consist of routine quarterly sampling for VOCs, metals, and other analytes to evaluate remedy performance. A validated exceedance of a surface-water standard at the treatment system effluent triggers monthly effluent sampling for three consecutive months. Continued exceedances during the 3-month period triggers sampling of the Landfill Pond for those constituents in question. Continued exceedances also trigger consultation between the parties to determine whether a change in the remedy is required, additional parameters need to be analyzed, or a modification of the monitoring plan is warranted. If surface water standards are exceeded in the Landfill Pond, the parties consult to determine if further monitoring modifications are warranted and if Landfill Pond operations should be addressed.

The routine quarterly effluent sample collected on 2/26/06 (Table 1) showed an arsenic concentration exceeding the applicable Rocky Flats Cleanup Agreement (RFCA) standard of 0.018 ug/L. Subsequent sampling on a monthly frequency (Table 1) also showed arsenic concentrations exceeding the RFCA standard, triggering sampling of the Landfill Pond (Table 2) and consultation.

Formal consultation regarding this issue took place on November 8, 2006.

Table 1. Present Landfill Treatment System Effluent (PLFSYSEFF): Summary of Analytical Results

Analyte	Sample Date	Result	Units	RFCA Standard ¹
Arsenic, total	2/23/06	18.1	µg/L	0.018
	<i>4/19/06</i>	<i>21.2</i>	<i>µg/L</i>	<i>0.018</i>
	<i>5/23/06</i>	<i>7.3</i>	<i>µg/L</i>	<i>0.018</i>
	<i>6/28/06</i>	<i>5.3</i>	<i>µg/L</i>	<i>0.018</i>
	<i>7/25/06</i>	<i>22.4</i>	<i>ug/L</i>	<i>0.018</i>

Notes: The initial result triggering monthly sampling is shown in **bold**. The routine quarterly samples are shown in italics.

¹ The Site analyzes for total As and conservatively compares to the **total recoverable** RFCA standard.

Table 2. Present Landfill Pond (PLFPONDEFF): Summary of Analytical Results

Analyte	Sample Date	Result	Units	RFCA Standard
Arsenic, total	7/31/06	7.2	µg/L	0.018

Notes: The 6/28/06 PLFSYSEFF result (Table 1) was received on 7/31/06, triggering pond sampling.

Resolution:

With the implementation of RFLMA (see RFLMA Attachment 2, Table 1), the applicable surface-water standard for arsenic will be 50 ug/L (total recoverable; based on the CDPHE Water Quality Control Commission Regulation No. 38 for Segments 4a, 4b, and 5 of Big Dry Creek). The parties recognize that past arsenic concentrations at the PLFTS are below the forthcoming RFLMA standard, and no action is warranted. The parties also recognize that the PLFTS is designed to treat VOCs, not metals such as arsenic. Monitoring at the PLFTS with regard to arsenic will continue as currently implemented based on this consultation.

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